***NATIONAL WEATHER SERVICE SOUTHERN REGION SUPPLEMENT 04-2003***
***APPLICABLE TO NWSI 10-310***
***September 30, 2004***

***Operations and Services***
***Marine and Coastal Weather Services, NWSPD 10-3***

***Marine Weather NWSI 10-310***

# *COASTAL MARINE FORECAST SERVICES*

**OPR:** W/SR11x5 (M. Bailey) **Certified by:** W/SR1 (J.Ladd)
**Type of Issuance:** Routine.

***SUMMARY OF REVISIONS:*** This supplement supersedes Southern Region Supplement 04-03 dated September 30, 2003, filed with NWSI 10-310.

The following changes were made to this issuance:

1. SCA and SCEC definitions have been refined.
2. Ranges and trends for winds and seas are recommended.
3. Rip current Call to Actions Statements are required, if issuing the SRF with rip current information in it.
4. Rip Current Call to Action Statements examples are provided.

Signed by September 16, 2004
Bill Proenza Date
Director, Southern Region

Table of Contents: Page

1. Introduction.
This supplement provides additional guidance and instructions for the Coastal Waters Forecast (CWF). Written instructions cannot address every situation. Operational personnel must exercise initiative and professional judgment to minimize risk to public safety and property in instances when written instructions do not provide appropriate guidance.

1.1. Interactive Forecast Preparation System (IFPS).
IFPS, a software generation program, cannot yet create all of the instructional wording called for in this Supplement. If the IFPS generated wording in the CWF or the wording in a headline reflects the intent of the forecast, editing of the product is not necessary to bring the CWF into conformance with this Supplement.

2. Coastal Waters Forecasts.

2.1 Issuances.

a. Product Issuance. (Reference Section 2.2.2 and 2.2.3 of 10-310.)
Southern Region (SR) Weather Forecast Offices (WFOs) will issue four scheduled CWFs daily, per the schedule below, and issue unscheduled update forecasts as necessary. Scheduled product issuance times will be no more than 1 hour earlier than this schedule or more than 30 minutes after this schedule. Issuance times are dependent on time zones:

CDT: 4:30 AM; 10:30 AM; 4:30 PM; 10:30 PM,
CST: 3:30 AM; 9:30 AM; 3:30 PM; 9:30 PM,
EDT: 4:30 AM; 10:30 AM; 4:30 PM; 10:30 PM,
EST: 4:30 AM; 10:30 AM; 4:30 PM; 10:30 PM, and
AST: 4:30 AM; 10:30 AM; 4:30 PM; 10:30 PM.

b. Abbreviations. Abbreviations and contractions will not be used in the main body of the forecast. This will allow our customers to read our products with ease and the information can be easily broadcasted on NOAA Weather Radio.

2.2 Forecast Content. (Reference Section 2.3.5 of 10-310.)

a. Headlines. Headlines are used to emphasize warnings and watches for weather and sea state conditions likely to jeopardize the safety of mariners or marine operations. In SR, headlines will be used only through Day 2 in the CWF product (depending on when the product was issued, the last headline period will be either the 3rd or 4th period of the forecast).

Forecasters may use more than one headline to indicate multiple threats or worsening conditions. When using multiple headlines, forecasters should use discretion based on each situation in order to decide whether to highlight the

most immediate threat in the first headline or put the headlines in chronological order.

(1) Headline Format

If conditions are expected beyond 12 hours, state the conditions expected and when they are expected. Mentioning the specific area in the headline is optional. Example:

...GALE FORCE WINDS EXPECTED (TOMORROW)...
or ...GALE FORCE WINDS EXPECTED (TOMORROW) [FOR LOCATION]...

If conditions are expected in the first 12 hours, state the warning or advisory only (do not include for *when*). Mentioning the specific area in the headline is optional. Example:

...GALE WARNING IN EFFECT...
or ...GALE WARNING IN EFFECT [FOR LOCATION]...

b. Tropical Cyclone Related Headlines. (Reference Section 2.3.5.b of 10-310.)
If an official watch or warning has not been issued by the National Hurricane Center (NHC) **and** the NHC 72 hour forecast radii falls within your CWA, include the headline "HURRICANE CONDITIONS POSSIBLE (specify when)" or "TROPICAL STORM CONDITIONS POSSIBLE (specify when)" only for Day 2 Night (i.e. only for periods 4 or 5, depending on when the forecast was issued).

c. Regional Definitions. (Reference Section 2.3.5.c of 10-310.)

(1) SMALL CRAFT ADVISORY

The criteria for issuing a SMALL CRAFT ADVISORY (SCA) in Southern Region are average wind speeds of 20 knots or greater, and/or forecast seas of 7 feet or greater. **Either condition must occur for two or more hours to validate an SCA forecast**. SCAs will be headlined for conditions expected during the first 12 hours of the forecast period. If SCA conditions are expected in the 12 to 24 hour period, you may headline the expected SCA conditions along with a suitable timeframe description. For example, "...SMALL CRAFT ADVISORIES MAY BE REQUIRED THURSDAY...". See Appendix C for forecast ranges for issuing SCAs and Gale Warnings.

(2) SMALL CRAFT SHOULD EXERCISE CAUTION

The cautionary statement "SMALL CRAFT SHOULD EXERCISE CAUTION" (SCEC) will be headlined for conditions forecast just below SCA criteria **during the first period only**. Specifically, the criteria for headlining SCEC in Southern Region are a wind forecast of 15 TO 20

knots (with the assumption that any 20 knot winds will not occur for two hours) **and/or** seas forecast at 6 feet. If the seas forecast is the reason for the SCEC, WFOs may include in the SCEC headline that reasoning. For example, "SMALL CRAFT SHOULD EXERCISE CAUTION UNTIL SEAS SUBSIDE."

2.3 Forecast Parameters and Elements.

a. Wind. (Reference Section 2.3.8.a of 10-310.)
Normally, a single prevailing wind direction should be used in the CWF; however during certain situations (e.g. a wind shift) forecasters may use a small range of wind direction (e.g., 45 degrees, "WEST NORTHWEST" or WEST TO NORTHWEST).

(1) It is best to use a range of sustained wind speed in the CWF. For example, NORTHEAST WINDS 20 TO 30 KNOTS, or NORTHWEST WINDS 13 TO 18 KNOTS.

(2) Significant differences between sustained winds and peak wind gusts of at least 15 knots should be specifically stated. For example, EAST WINDS 40 KNOTS WITH GUSTS TO 60 KNOTS.

(3) Use the term "AND GUSTY" for expected gusts of 5 to 10 knots above the sustained wind speed (e.g. 10 TO 20 KNOTS AND GUSTY).

(4) To add clarity to forecast trends, use terms such as "INCREASING," "DECREASING," BECOMING" or "SHIFTING."

b. Seas. (Reference section 2.3.8.b of 10-310.)

(1) Inland waters and bays exempted from having detailed sea state predictions should use a general description of sea conditions (i.e., rough, choppy, etc.) when it helps convey the severity of a given situation.

(2) It is best to use a range of seas in the CWF. For example, SEAS 8 TO 10 FEET or SEAS 10 to 15 FEET.

(3) To add clarity to forecast trends, use terms such a "BUILDING" and "SUBSIDING."

c. Weather. (Reference Section 2.3.8.c of 10-310.)
When mentioning precipitation, either areal coverage terms or probability terms may be used in the CWF.

3. Surf Zone Forecasts (SRF). (Reference Section 3.0 of 10-310.)

An office issuing rip current information should use the SRF product for dissemination. The 'surf zone' is the very narrow area of water between the high tide level on the beach and the sea-ward side of breaking waves. Breaking wave heights, water level set up, and rip currents, are a few parameters WFOs can include in their SRFs. SRF content, dissemination times, seasonal or not, etc., is a local WFO option and should be developed in coordination with local safety agencies who have responsibility for beachfront safety.

3.1 Rip Currents. (Reference Section 3.6 of 10-310.)
Developing a rip current program for a WFOs surf zone area of responsibility is a collaborated effort between beachfront safety personnel (lifeguards, associations, beach patrol, etc.) and WFO personnel.

a. Products for Rip Current information.
WFOs that issue rip current information should must mention the rip current hazards in the SRF product. Rip current information will also be mentioned in Hazardous Weather Outlooks (HWO) if the rip current risk is MODERATE or HIGH.

b. Rip Current Call to Action Statements.
WFOs that issue rip current information in their SRF product, will always include
a call to action statement, even when the risk is low. See Appendix B for examples.

4. Graphical Forecasts.
In addition to narrative products, WFOs will issue marine weather information in graphical format from GFE.

# APPENDIX A – Examples of CWF Forecast

**1. SCEC conditions expected to develop within 12 hrs**

...SMALL CRAFT SHOULD EXERCISE CAUTION...

.TODAY...SOUTHEAST WIND 5 TO 15 KNOTS...INCREASING TO 10 TO 20 KNOTS DURING THE AFTERNOON. SEAS 3 TO 5 FEET.
.TONIGHT...SOUTHEAST WIND 10 TO 15 KNOTS. SEAS 2 TO 4 FEET.
.FRIDAY...SOUTHEAST WIND AROUND 10 KNOTS. SEAS 2 TO 4 FEET.
.FRIDAY NIGHT...SOUTHEAST WIND AROUND 10 KNOTS. SEAS 2 TO 4 FEET.

$$

**2. SCA conditions expected to develop within 12 hrs**

...SMALL CRAFT ADVISORY IN EFFECT...

.TODAY...SOUTHEAST WIND 10 TO 15 KNOTS...INCREASING TO 20 TO 30 KNOTS DURING THE AFTERNOON. SEAS 5 TO 6 FEET...BUILDING TO 8 FEET.
.TONIGHT...SOUTHEAST WIND 15 TO 25 KNOTS. SEAS 6 TO 8 FEET.
.FRIDAY...SOUTH WIND 15 TO 20 KNOTS. SEAS 5 TO 7 FEET.
.FRIDAY NIGHT...SOUTHEAST WIND 15 TO KNOTS. SEAS 5 TO 7 FEET.

$$

**3. SCA conditions expected late in the forecast**

...SMALL CRAFT ADVISORY CONDITIONS EXPECTED FRIDAY...

.TODAY...SOUTHEAST WIND 10 TO 15 KNOTS. SEAS 3 TO 5 FEET.
.TONIGHT...SOUTHEAST WIND 10 TO 20 KNOTS. SEAS 4 TO 6 FEET.
FRIDAY...SOUTHEAST WIND 20 TO 30 KNOTS. SEAS 5 TO 8 FEET.
.FRIDAY NIGHT...SOUTHEAST WIND 20 TO 30 KNOTS. SEAS 6 TO 10 FEET.

$$

**4. SCA increasing to gale**

...SMALL CRAFT ADVISORY IN EFFECT...
...GALE FORCE WINDS EXPECTED FRIDAY...

.TODAY...NORTH WIND 20 TO 30 KNOTS. SEAS 5 TO 9 FEET.
.TONIGHT...NORTHEAST WIND 25 TO 30 KNOTS. SEAS 10 TO 12 FEET.
.FRIDAY...EAST WIND 30 TO 40 KNOTS. SEAS 12 TO 16 FEET.
.FRIDAY NIGHT...EAST WIND 30 TO 40 KNOTS. SEAS 12 TO 16 FEET.

$$

**5. Gale force winds late in the forecast**

...SMALL CRAFT ADVISORY CONDITIONS EXPECTED TONIGHT...
...GALE FORCE WINDS EXPECTED FRIDAY NIGHT...

.TODAY...SOUTHEAST WIND 5 TO 15 KNOTS. SEAS 3 TO 5 FEET.
.TONIGHT...EAST WIND 15 TO 25 KNOTS. SEAS 5 TO 7 FEET.
.FRIDAY...NORTHEAST WIND INCREASING TO 25 TO 35 KNOTS. SEAS BUILDING TO 9 FEET.
.FRIDAY NIGHT...NORTH WIND 30 TO 40 KNOTS. SEAS 10 TO 12 FEET.

$$

**6. Gale increasing to storm force**

...GALE WARNING IN EFFECT...
...STORM FORCE WINDS EXPECTED FRIDAY...

.TODAY...NORTH WIND 35 TO 40 KNOTS. SEAS 10 TO 12 FEET.
.TONIGHT...NORTHEAST WIND 40 TO 45 KNOTS. SEAS 15 TO 18 FEET.
.FRIDAY...EAST WIND 50 TO 60 KNOTS. SEAS 20 TO 25 FEET.
.FRIDAY NIGHT...SOUTHEAST WIND 35 TO 45 KNOTS. SEAS 16 TO 18 FEET.

$$

**7. Storm force winds late in the forecast**

...SMALL CRAFT ADVISORY IN EFFECT...
...GALE FORCE WINDS EXPECTED FRIDAY...
...STORM FORCE WINDS EXPECTED FRIDAY NIGHT...

.TODAY...SOUTHEAST WIND 20 TO 30 KNOTS. SEAS 6 TO 8 FEET.
.TONIGHT...EAST WIND 25 TO 30 KNOTS. SEAS 8 TO 10 FEET.
.FRIDAY...NORTHEAST WIND 30 TO 40 KNOTS. SEAS BUILDING TO 14 FEET.
.FRIDAY NIGHT...NORTH WIND INCREASING TO 50 KNOTS. SEAS BUILDING TO 20 FEET.

$$

## APPENDIX B – Examples of Rip Current Call to Action Statements

Low Risk of Rip Currents

- Although the outlook is for a low risk, rip currents can sometimes occur suddenly and unexpectedly, especially near piers, jetties, or sand bars. For maximum safety, swim near a lifeguard.
- Although the outlook for rip currents is low, weak rip currents can sometimes form. Always supervise those who cannot swim.
- When possible swim near lifeguards.

Moderate Risk of Rip Currents

- During times of moderate rip current risk, persons should enter the water only if they are experienced with swimming in the surf. If caught in a rip current, don't try to fight its seaward pull. Move across the current in a direction following the shoreline.
- If caught in a rip current, stay calm and swim parallel to the beach until the current weakens, then swim toward shore. Call or wave your hands to get the attention of the lifeguards. If you are not an experienced swimmer and cannot keep yourself afloat for extended periods, do not enter the water. Heed the advice of beach patrol.
- Never fight a rip current. If you find yourself being pulled out to sea, do not fight the current by trying to swim back to shore. Stay calm and go with the flow. Keep yourself afloat by treading water or swimming parallel to the beach. If no help is available and you need to get back to the beach on your own, swim with the waves back toward the beach.

High Risk of Rip Currents

- When the rip current risk is high, the surf is dangerous for all levels of swimmers. Even those using surf or boogie boards are urged to use extreme caution.
- Rip Currents are life-threatening to anyone entering the surf.

Examples of General Call To Action Statements Recommended for Use

For maximum safety, swim near a lifeguard.
Obey all instructions and orders from lifeguards.
Be cautious for possible rip currents at all times.
If in doubt, don't go out.
Don't fight the current; stay calm.
Escape the current by swimming in a direction following the shoreline. When free of the current, swim at an angle -away from the current- toward shore.
If you are unable to escape by swimming, float or tread water. When the current weakens, swim at an angle away from the current toward shore.
If at any time you feel you will be unable to reach shore, draw attention to yourself: face the shore, call or wave for help.
Never swim alone.
Check with the lifeguard before swimming.

**APPENDIX C –** Forecast Ranges for issuing SCAs and Gale Storm Warnings

**If SCAs are being issued based on forecast wind speeds (not sea heights), the accepted forecast wind speed ranges in the CWF are:**

15 to 25 knots,
20 knots,
20 to 25 knots, 25 knots, 20 to 30 knots
25 to 30 knots, 30 knots.

**Accepted forecast wind speed ranges for Gale Warnings:**

25 to 35 knots, 30 to 35 knots, 35 knots, 35 to 40 knots, 30 to 40 knots 40 knots,
35 to 45 knots, 40 to 45 knots, 45 knots